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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,580	12/04/2003	Norikazu Yokonuma	104487.01	5097

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P.O. BOX 19928
ALEXANDRIA, VA 22320

EXAMINER

TRAN, NHAN T

ART UNIT	PAPER NUMBER
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2622

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/30/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/726,580

Applicant(s)

YOKONUMA, NORIKAZU

Examiner

Nhan T. Tran

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/4/2003 & 3/15/2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/412,652.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 09/412,652, filed on 10/5/1999.

Information Disclosure Statement

2. The information disclosure statements (IDS) submitted on 12/4/2003 & 3/15/2007 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements are being considered by the examiner.

Preliminary Amendment

3. Preliminary amendment to the specification filed 12/4/2003 to indicate that the instant application is a continuation application of 09/412,652 filed October 5, 1999 is accepted.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4. Claims 1-3 & 9-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Yoshida Hideaki (JP 04-088762).

Regarding claim 1, Yoshida discloses an electronic camera (see Abstract) comprising:

a signal processing unit (control amplifier 6) that capable of amplifying an image signal output by an amplifying device at a plurality of gains (e.g., gains GP and GN; see Abstract);

a photographing operation control device (controller 4) that performs a preliminary photographing operation (preliminary exposure by pre-lighting) prior to a main photographing operation (main exposure) and performs the main photographing operation based upon results of the preliminary photographing operation (see Abstract and Figs. 1 - 6).

Regarding claim 2, Yoshida discloses an electronic camera (see Abstract) comprising:

a signal processing unit that capable of amplifying an image signal output by an amplifying device at a plurality of gains (e.g., gains GP, GN);

a photographing operation control device (controller 4) that performs a preliminary photographing operation accompanied by a light emission by an electronic flash unit (preliminary exposure by pre-lighting) prior to a main photographing operation when photographing is to be performed using the electronic flash unit (main exposure at

main lighting) and determines a light emission quantity (main lighting luminous quantity M) at the electronic flash unit for the main photographing operation based upon results of the preliminary photographing operation in order to perform the main photographing operation (see Abstract and Figs. 1 - 6).

Regarding claim 3, Yoshida also discloses a gain changing device that sets a gain (e.g., GP) at the signal processing unit for the preliminary photographing operation **higher** than a gain (e.g., GN) for the main photographing operation (see Abstract).

Regarding claim 9, the image data obtained through the main photographing operation are still image data (see Abstract, it should be noted that the operations of pre-lighting and main lighting by the strobe in Yoshida clearly indicates that the main lighting is for picking up a still image).

Regarding claim 10, Yoshida discloses a digital still camera (see abstract and Figs. 1-6, wherein the digital still camera is indicated by A/D converter 9 and note the Examiner in claim 9 for a still camera represented by picking up a still image) comprising:

an imaging device (an imager 3) that converts light flux from a subject to an image signal (Abstract and Figs. 1-6);

a signal processing unit (combined circuits of 5-9) that processes the image signal output by imaging device (Abstract and Figs. 1-6);

a release switch operated to issue a command for a start of a photographing operation (see Abstract, wherein "a release switch" is inherently disclosed by virtue of "a pickup is commanded");

a control unit (system controller 4) that performs a preliminary photographing operation in response to an operation of the release switch (e.g., a preliminary strobe pickup is commanded), inputs an image signal then output by the imaging device, sets photographing conditions for a subsequent main photographing operation based upon the image signal, performs the main photographing operation under conditions thus set and records an image signal then output by the imaging device into a recording medium (see Abstract and Figs. 1-6 in which the recording medium such as a memory or a buffer is inherent in the electronic camera of Yoshida in order to store the captured image).

Regarding claim 11, Yoshida clearly discloses that an electronic flash unit (strobe 12) illuminates the subject, wherein: the control unit irradiates illuminating light from the electronic flash unit during the preliminary photographing operation (pre-lighting) and the main photographing operation (main lighting) (see Abstract and Figs. 1-6).

Regarding claim 12, the limitations of this claim are also met by the analysis of claim 3.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claim 10 is rejected under 35 U.S.C. 102(e) as being anticipated by Nakajima (US 6,069,659).

Regarding claim 10, Nakajima discloses a digital still camera (col. 1, lines 6-10 and col. 3, lines 10-22 in which “digital” is presented by A/D converter 3) comprising:

an imaging device (1) that converts light flux from a subject to an image signal (see Fig. 1; col. 3, lines 10-22);

a signal processing unit (2) that processes the image signal output by imaging device (see Fig. 1; col. 3, lines 53-60);

a release switch operated (step S8 shown in Fig. 3) to issue a command for a start of a photographing operation (col. 4, lines 1-14);

a control unit (CPU 6) that performs a preliminary photographing operation in response to an operation of the release switch (step S8), inputs an image signal then output by the imaging device (steps S12-S14), sets photographing conditions for a subsequent main photographing operation based upon the image signal (steps S15-S16), performs the main photographing operation (steps S17-S19) under conditions.

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thus set and records an image signal then output the imaging device into a recording medium (see Figs 1-3; col. 4, lines 15-51).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4-6 & 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida (JP 04-088762) in view of Sugimoto (US 6,441,856).

Regarding claim 4, Yoshida does not explicitly disclose (due to English translation was not available at the mean time) that an exposure time for the preliminary photographing operation is shorter than an exposure time set for the main photographing operation. However, such pre-exposure time being shorter than the main exposure time is clearly taught by Sugimoto to avoid fluctuation of the luminance due to an external light, therefore, it is possible to precisely calculate the main light emission amount (see Sugimoto, Figs. 8 & 9; col. 2, lines 60-65; col. 11, lines 34-53, in which the exposure time for preliminary exposure is set to 1/1500 second while the exposure time for the main exposure is set to 1/30 second).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the apparatus of Yoshida to include the teaching of Sugimoto to set an exposure time for the preliminary photographing operation to be shorter than an exposure time set for the main photographing operation to avoid fluctuation of the luminance due to an external light so as to precisely calculate the main light emission amount.

Regarding claim 5, Yoshida does not explicitly disclose that the preliminary photographing operation and the main photographing operation are performed in succession in response to a single release operation.

Sugimoto teaches a single release operation for performing the preliminary exposure then the main exposure in one succession of the release operation as shown in step S3 in Figs. 7 – 9.

It would be possible to exclude the influence of the external light in calculating the major light emission amount for the main exposure in one single release so that the fluctuation of luminance caused by external light is avoided.

Therefore, it would have been obvious to one of ordinary skill in the art to modify Yoshida's apparatus by incorporating Sugimoto's teaching to provide a single release operation to perform the preliminary photographing operation and the main photographing operation in one succession of the release operation for preventing the influence of the external light in calculating the major light emission amount for the main exposure so that a light precise emission amount for the main exposure would be obtained.

Regarding claim 6, although Yoshida does not explicitly disclose a light emission at the electronic flash unit for the preliminary photographing operation is lower than a light emission quantity for the main photographing operation, such lack of teaching is compensated by Sugimoto with a well-known feature in which the light emission quantity for the preliminary exposure is lower than the light emission quantity for the main exposure by a factor as shown by equation in *col. 11, lines 20-34*, wherein the light emission for the main exposure is obtained by multiplying the light emission for the preliminary exposure with a calculated magnification.

It would prevent a long charging time for the light emission at the main exposure after the preliminary emission by setting the preliminary light emission amount to be smaller than the main light emission amount.

Therefore, it would have been obvious to one of ordinary skill in the art to configure the camera of Yoshida in view of the teaching of Sugimoto by setting a light emission at the electronic flash unit for the preliminary photographing operation to be lower than a light emission quantity for the main photographing operation to prevent a long charging time for the light emission at the main exposure after the preliminary emission by setting the preliminary light emission amount to be smaller than the main light emission amount.

Regarding claim 8, Yoshida does not explicitly disclose that only image data obtained through the main photographing operation are recorded in the recording device without recording image data obtained through the preliminary operation.

However, Sugimoto further teaches only the image data obtained through the main exposure (at step S49) are recorded the recording medium (44) so that the camera operates efficiently by saving memory space for recording only the main image (see Sugimoto, Figs. 7 -9; col. 11, line 56 – col. 12, line 5).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the camera of Yoshida in view of the teaching of Sugimoto such that the camera would perform image processing more efficiently without wasting the memory space in the recording medium by only recording the image data obtained through the main photographing operation.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida (JP 04-088762) in view of Akamatsu et al. (US 6,009,280).

Regarding claim 7, Yoshida does not disclose that a light emission at the electronic flash unit for the preliminary photographing operation is set based upon an aperture value set at taking lens and a photographing distance. However, it is gwell known in the art that the light emission at the flash unit is controlled based on aperture value control and the photographing distance so as to obtain accurate light emission amount for proper exposure when zooming is performed as taught by Akamatsu in col. 15, lines 8-12.

Therefore, it would have been obvious to one of ordinary skill in the art to further modify the camera of Yoshida to include teaching of Akamatsu such that a light

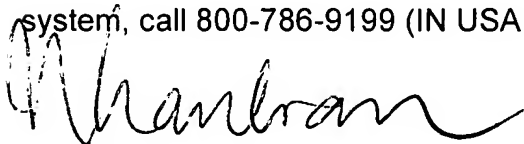
emission at the electronic flash unit for the preliminary photographing operation is set based upon an aperture value set at taking lens and a photographing distance so as to obtain accurate light emission amount for proper exposure when zooming is performed.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhan T. Tran whose telephone number is (571) 272-7371. The examiner can normally be reached on Monday - Friday, 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



NHAN T. TRAN
Patent Examiner